

iPad advice for schools

The Learning in an Online World Pedagogy Strategy (MCEEDYA) urges the consideration and knowledge of emerging technologies to support quality learning and teaching.

“Quality teaching and learning that integrates information communication technologies depends on:

- *pedagogical knowledge and skills*
- *understanding the potential of ICT to support learning*
- *knowledge of current and emerging technologies*
- *opportunities to explore and develop skills in the use of ICT.”ⁱ*

Since the iPad was released in Australia in May 2010, it has been embraced by many in the education community. iPads are being used by schools (P-12) in a variety of ways. Both the Victorianⁱⁱ and Queenslandⁱⁱⁱ Education Departments have initiated trials to evaluate the effectiveness of iPads for use by schools as a learning tool. The learnings from these trials are as yet unpublished, however school related case studies from these and other trials indicate a number of benefits and limitations in the use of the device. Brisbane CEO has also published an evaluation report and advice on recommended computing devices for its students.

Benefits

- Extend the learning beyond the classroom enabling anytime/anywhere access.
- User-centred devices: ‘Ownership’ encourages student initiated learning and sense of responsibility. Can enable learner autonomy and help deliver personalised learning (BECTA 2009)^{iv}.
- Offer no physical barrier to communication and collaboration (unlike laptops); students can sit and discuss what they were doing and share the device between several people.
- With regard to assessing and observing pupils working, the size of the screen in laptops can be seen as a barrier - iPad type devices help overcome this.
- There is access to a large range of apps available to support student learning. The range of apps can contribute to choice in how students learn^v.
- Many apps are interactive and give feedback on learning progress.
- Provide access to interactive texts - providing the opportunity to access information in a variety of ways - print, audio, video.
- Second generation devices have image, audio and video capturing capabilities allowing students to easily capture evidence of their learning.
- iPads are seen to be likely to replace textbooks and booklists. The newer forms of the ‘textbook’ resource have the capacity for significant interactivity and can offer a range of media types. They represent a saving against the purchase of these texts.
- Students are able to select the tools that best suit their needs. There are also apps that provide opportunities for reflecting upon their learning.
- The device’s compact size, ease of transportability and design means it can be used in almost any learning situation.



- The long battery life will allow it to be used all day at school without recharging.
- The device is instantly on, simple to use and manage, and very easy to read with font size generally adjustable.

Limitations

- Essentially consumption devices have limitations as creation devices, not having full functionality in comparison to a laptop.
- The devices may not be durable enough to cope with an education environment over a long period of time. Current warranty is only available for up to 2 years.
- The management of backups and syncing for students may involve excessive time, eg the Elements app is 1.3 GB and takes a significant time to be downloaded to a device either wirelessly or via a fixed USB connection. This app may be a common one for junior secondary students.
- iPads may not be readily able to connect to normal system services and operate effectively. The use of Virtual Desktops would assist but the interface may have some issues for individual application. Virtual Desktops are not a common part of schools environments at this time.
- iPads only come natively with the Safari browser. The functionality required by some applications through other browsers such as Internet Explorer may not be available and hinder the capability of the device to gain a feature rich integration to hosted systems.
- Limited as to the types of quality digital resources that can be accessed through these devices - for example the iPad is unable to access any Flash content. Much of the Learning Federation Digital content is flash based.
- Mobile Device Management software would allow schools to more effectively manage their fleet of idevices but it is typically too expensive at this time.
- iPad type devices are seen as complementary devices to a more capable desktop or notebook. (The physical syncing currently required to make an (iPad) fully functional indicates that Apple views it in the same way)^{vi}.

Infrastructure/Technical issues

- iPads are reliant on wireless connection for internet access in schools. Most secondary schools will have Wireless LANs as a result of the DER but primary schools may have very limited infrastructure in this area.
- Wireless security should generally be WPA2 with a long 16 character minimum key.
- Many apps are not 'proxy aware'. All SINA schools get to the internet through a central proxy that authenticates the user. This can be easily configured within the settings on an iPad but a number of apps ignore these settings and attempt to go directly to the internet. Consequently these apps do not work without a degree of technical intervention. A common example of this is the ABC iPad app.
- File sharing is most easily achieved using WEBDAV servers. This also takes a reasonable degree of technical expertise to setup.

Legal

- Questions about whether apps can be synced to multiple iPads. It is possible to sync apps to many devices but the legalities as identified from the Apple website state:

"APP STORE PRODUCT USAGE RULES



(i) You may download and sync an App Store Product for personal, noncommercial use on any iOS Device you own or control.

(ii) If you are a commercial enterprise or educational institution, you may download and sync an App Store Product for use by either (a) a single individual on one or more iOS Devices you own or control or (b) multiple individuals, on a single shared iOS Device you own or control. For example, a single employee may use the Product on both the employee's iPhone and iPad, or multiple students may serially use the Product on a single iPad located at a resource center or library.

(iii) You shall be able to store App Store Products from up to five different Accounts at a time on compatible iOS Devices.”

Apple representatives have advised that each idevice has to have a licence for each purchased app. Some schools have overcome this issue by ‘gifting’ purchased apps to students. At the moment there is no volume licencing in Australia as there is in the UK.

- If the device is owned by the student then there is a need to ensure there is a capacity to manage the iTunes account within the student's family and that there is access to broadband at home. Alternately a separate iTunes account needs to be maintained for each student/device at school.

Summary

Schools are advised to first determine their needs in terms of learning and teaching when making decisions about 1-1 devices. 21 Steps to 1-1 Success provides guidance for schools in this matter.^{vii}

ⁱ Pedagogy Strategy: Learning in an Online World (MCEETYA, 2005)

http://www.curriculum.edu.au/verve/_resources/ICT_LearningOnlineWorld-PedagogyStrategy.pdf

ⁱⁱ DEECD iPad trial

<http://www.ipadsforeducation.vic.edu.au/ipad-student-trial>

ⁱⁱⁱ Queensland Government Smart classrooms iPad trial.

<http://education.qld.gov.au/smartclassrooms/strategy/dp/ipad-trial.html>

^{iv} BECTA - mobile devices

<http://webarchive.nationalarchives.gov.uk/20101102103654/http://emergingtechnologies.becta.org.uk/index.php?section=etr&rid=14112>

^v Ringwood North Primary school

<http://www.ipadsforeducation.vic.edu.au/ipad-education-case-studies/5-ringwood-north-primary-school>

^{vi} University of Pennsylvania

<http://www.upenn.edu/computing/provider/docs/hardware/pnipad2.html>

^{vii} 21 Steps to 1-1 Success

<http://asp-uk.secure-zone.net/v2/639/684/1625/iPads-for-Learning---21-Steps-to-1-to-1-Success.pdf>

Further Reading:

iPads for Learning <http://www.ipadsforeducation.vic.edu.au/>

iPads in Education http://www.edna.edu.au/edna/go/schooled/school_theme_pages/ipads